L 52298-65 EWT(d)/EWT(1)/EWT(m)/EWP(w)/EPF(c)/EPF(n)-2/EWG(m)/EWA(d)/EPR
Pr-4/Ps-4/Pu-4 WW/EM
ACCESSION NR: AP5011593 UR/0198/65/001/003/0107/0115

AUTHOR: Shvets, R. N. (L'vov)

TITLE: Interconnected problem of thermoelasticity for a thin plate

SOURCE: Prikladnaya mekhanika, v. 1, no. 3, 1965, 107-115

TOPIC TAGS: thermoelasticity, thermodynamics, heat transfer, stress distribution, irreversible thermodynamics, stress load, elastoplastic, equation of state

ABSTRACT: The interrelated equations of thermoelasticity for a thin plate in the presence of heat transfer were derived from irreversible thermodynamics considerations. Starting with the equation of the thermodynamics of deformation

$$d\Phi = -SdT - \left(\frac{1}{3}\delta_{ij} + e_{ij}\right) d\sigma_{ij}, \qquad (i, j = 1, 2, 3),$$

and the appropriate equation of state

$$\sigma_{ij} = Ke\delta_{ij} + 2Ge_{ij} - \alpha_t K(1+\nu)t\delta_{ij};$$
$$T(S - S_0) = c_v t + \alpha_t T\sigma^*,$$

the following complete set of thermoelastic equations is obtained

$$\Delta t - \mu t - \frac{1}{\varkappa}\frac{\partial t}{\partial \tau} - \frac{\gamma_0}{\varkappa}\frac{\partial e}{\partial \tau} = -\mu t_s,$$

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ACCESSION NR: AP5011593

where $\Delta = \frac{\partial^2}{\partial x^2} + \frac{\partial^2}{\partial y^2}$; $\mu = \frac{\alpha_n}{h\lambda}$; $\varkappa = \frac{\lambda}{c_0(1+\varepsilon)}$; $\gamma_0 = \frac{\alpha_t E T}{c_0(1-\nu)(1+\varepsilon)}$;

and $$\Delta\vec{u} + (c^2 - 1)\,\mathrm{grad}\,\mathrm{div}\,\vec{u} - 2\alpha_t(c^2-1)\,\mathrm{grad}\,t = \frac{1}{c_2^2}\frac{\partial^2\vec{u}}{\partial\tau^2} - \frac{\vec{F}}{G},$$

where

$$\vec{u} = u\vec{k}_1 + v\vec{k}_2;\quad c^2 = \frac{c_1^2}{c_2^2} = \frac{2}{1-\nu};\quad c_1 = \sqrt{\frac{E}{\varrho(1-\nu^2)}};\quad c_2 = \sqrt{\frac{G}{\varrho}}.$$

The relationship between the thermoelastic and the rheological equations is investigated. An equation is derived which shows the irreversibility connected with the presence of heat flow through the plate surface. The stress-strain relationship in the thermoelastic state of the plate is investigated in detail for a concentrated time-dependent load $Pe^{i\omega\tau}$. The displacement and temperature equations for this case are given by

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ACCESSION NR: AP5011593

$$\bar{u}_n = \frac{i(-1)^{n+1}}{4Gc_2^2 n!}(\vec{l}\cdot\vec{\nabla})^n \{[\omega_2^2\bar{P} + \operatorname{grad}(\bar{P}\cdot\bar{\nabla})] H_0^{(2)}(\omega_2 r) +$$

$$+ \operatorname{grad}(\bar{P}\cdot\bar{\nabla})[AH_0^{(1)}(\alpha r) - BH_0^{(1)}(\beta r)]\} e^{i\omega t};$$

$$t_n = \frac{\gamma_0\omega_1(-1)^n}{4GDc_2^2 n!}(\vec{l}\cdot\vec{\nabla})^n(\bar{P}\cdot\bar{\nabla})[H_0^{(1)}(\alpha r) - H_0^{(1)}(\beta r)] e^{i\omega t},$$

$$A = \frac{\omega_1^2 - \beta^2}{D};\ B = \frac{\omega_1^2 - \alpha^2}{D}.$$

These equations show the presence of elastic transverse waves propagating with a constant velocity c_2, and elastic longitudinal and thermal waves with the corresponding velocities

$$v_1 = -\frac{\omega}{\operatorname{Re}\alpha};\ v_2 = -\frac{\omega}{\operatorname{Re}\beta}.$$

A few special cases for the concentrated load are discussed and the stress-strain equations given. Orig. art. has: 43 equations.

Card 3/4

L 52298-65

ACCESSION NR: AP5011593

ASSOCIATION: Fiziko-mekhanicheskiy institut AN UkrSSR (Physico-Mechanical Institute, AN UkrSSR)

SUBMITTED: 08Dec64 ENCL: 00 SUB CODE: ME, TD

NO REF SOV: 007 OTHER: 001

Card 4/4

L 51874-65 EWT(m)/EWP(i)/T/EWP(t)/EWP(b) Pad JD/HW

ACCESSION NR: AP5011779 UR/0198/65/001/004/0025/0029

23
22
B

AUTHOR: Shvets, R. N. (L'vov)

TITLE: On the uniqueness of a solution of the dynamic problem of thermoelasticity of thin shells

SOURCE: Prikladnaya mekhanika, v. 1, no. 4, 1965, 25-29

TOPIC TAGS: thermoelasticity dynamic problem, thermoelasticity, thermoelastic method, thin shell

ABSTRACT: Certain problems related to the subject of thermoelasticity of thin shells with consideration given to complicated boundary conditions are discussed. The work is an extension of the results presented by J. H. Weiner (A uniqueness theorem for the coupled thermoelastic problem, Quart., Appl. Math., 15, No. 1, 1957). The problem is presented in terms of: 1) the differential equations describing the stress-deformed condition of a thin thermoelastic shell; 2) the temperature characteristics related to rate of displacement; 3) equations giving elasticity and Poisson ratio relationships; and 4) geometrical coordinate equations. Taken together, these equations form the complete system of coupled equations of thermoelasticity of thin shells. A set of boundary conditions intro-

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L 51874-65

ACCESSION NR: AP5011779

duced here takes into account geometric and time variations of temperature within the structure. It is proved that a unique set of temperature functions exists and satisfies the linear system given. The author comments that the method can be applied to other sets of common boundary conditions. Orig. art. has: 19 equations.

ASSOCIATION: Fiziko-mekhanicheskiy institut AN UkrSSR (Physico-Mechanics Institute AN UkrSSR)

SUBMITTED: 07Mar64 ENCL: 00 SUB CODE: MA

NO REF SOV: 003 OTHER: 001

Card 2/2

KUSEN', S.I.; SHVETS, S.F. [Shvets', S.F.]

Phenols in precipitates obtained during the action of trichloroacetic acid on liver tissue and the digestive tract wall of adult cattle and fetuses. Dop. AN URSR no. 12:1625-1628 '64. (MIRA 18:1)

1. Ukrainskiy nauchno-issledovatel'skiy institut fiziologii biokhimii sel'skokhozyaystvennykh zhivotnykh. Predstavleno akademikom AN UkrSSR M.F.Gulym [Hulyi, M.F.].

KUSEN', S.I.; SHVETS, S.F. [Shvets', S.F.]

Concentration of conjugated phenol compounds in the tissues of the liver and the walls of the alimentary tract of fetuses and adult cattle. Ukr. biokhim. zhur. 36 no.5:756-766 '64. (MIRA 18:6)

1. Ukrainskiy nauchno-issledovatel'skiy institut fiziologii i biokhimii sel'skokhozyaystvennykh zhivotnykh, L'vov.

SOBCHENKO, Aleksandra Viktorovna [Sobchenko, O.V.]; NEGOVSKIY, M.M. [Nehovs'kyi, M.M.], doktor biolog.nauk, otv.red.; SHVETS', S.I., red.

[Experience in obtaining high sugar-beet yields] Dosvid oderzhannia vysokykh urozhaiv tsukrovykh buriakiv. Kyiv, 1960. 29 p. (Tovarystvo dlia poshyrennia politychnykh i naukovykh znan' Ukrains'koi RSR. Ser.6, no.14). (MIRA 13:10)
(Sugar beets)

DZYUBA, Nikolay Yevtikhiyevich [Dziuba, M.IE.], agronom; BUGAY, S.M. [Bukhai, S.M.], doktor sel'skokhoz.nauk, otv.red.; SHVETS', S.I., red.

[Seed production on collective and state farms] Nasinnytstvo u kolhospakh i radhospakh. Kyiv, 1960. 39 p. (Tovarystvo dlia poshyrennia politychnykh i naukovykh znan' Ukrains'koi RSR. Ser.6, no.15). (MIRA 13:10)

(Seed production)

VORONIN, P. V., SHVETS, S. YE.

Glass Manufacture

Cutting head for sharpening the asbestos roller on VVS machine. Stek. i ker, 9 No. 4, 1952

Monthly List of Russian Accessions, Library of Congress, August, 1952. UNCLASSIFIED.

SHVETS, T.B.

Changes in the electrical potential along a nerve following the formation in it of a focus of alteration by pressure. Preliminary report. Trudy Inst.vys.nerv.deiat. Ser.fiziol. 4:94-100 '60. (MIRA 13:7)

1. Iz Laboratorii obshchey fiziologii tsentral'noy nervnoy sistemy Instituta vysshey nervnoy deyatel'nosti AN SSSR. Zaveduyushchiy laboratoriyey - V.S. Rusinov.
(ELECTROPHYSIOLOGY) (NERVES)

SHVETS, T.B.

Biopotentials of the rabbit's cerebral cortex recorded by means of a direct current amplifier. Trudy Inst.vys.nerv.deiat. Ser. fiziol. 4:101-114 '60. (MIRA 13:7)

1. Iz Laboratorii obshchey fiziologii tsentral'noy nervnoy sistemy Instituta vysshey nervnoy deyatel'nosti AN SSSR. Zaveduyushchiy laboratoriyey - V.S. Rusinov.
(ELECTROPHYSIOLOGY) (CEREBRAL CORTEX)

SHVETS, T.B.

Slow changes in the potentials of the cerebral cortex of a rabbit under the influence of pressure on the cortical end of the motor analysor. Trudy Inst.vys.nerv.deiat. Ser.fiziol. 4:115-125 '60. (MIRA 13:7)

1. Iz Laboratorii obshchey fiziologii tsentral'noy nervnoy sistemy Instituta vysshey nervnoy deyatel'nosti AN SSSR. Zaveduyushchiy laboratoriyey - V.S. Rusinov.
(ELECTROPHYSIOLOGY) (CEREBRAL CORTEX)

SHVETS, T.B.

Slow electrical processes in the cerebral cortex of a rabbit following breaking of a temporary connection. Trudy Inst. vys. nerv. deiat. Ser. fiziol. 5:58-69 '60. (MIRA 13:10)

1. Iz Laboratorii obshchey fiziologii, (zav. - V.S. Rusinov) instituta vysshey nervnoy deyatel'nosti.
(ELECTROENCEPHALOGRAPHY) (CEREBRAL CORTEX)
(CONDITIONED RESPONSE)

SHVETS, T.B.

Change in the level of the constant potential of the cerebral cortex surface in response to the use of different afferent stimuli. Trudy Inst.vys.nerv.deiat. Ser.fiziol. 7:69-77 '62. (MIRA 16:2)

(CEREBRAL CORTEX) (ELECTROPHYSIOLOGY)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001550410011-3"

NIKHIMSON, I.M.; BASKOVICH, TS.L.; SHVETS, TS.I.

Method for the bacteriological study of convalescents and those who have had dysentery. Lab. delo 7 no.12:36-37 D '61. (MIRA 14:11)

1. Khar'kovskaya oblastnaya sanitarno-epidemiologicheskaya stantsiya (glavnyy vrach I.I.Chernov).
(DYSENTERY)

L 22533-65 EWT(m)/EFF(c)/EPA(w)-2/EWP(j)/T Pc-4/Pab-10/Pr-4 RM/RWH/WW

ACCESSION NR: AP4047950 S/0020/64/158/005/1162/1165

AUTHOR: Natanson, E. M.; Khimchenko, Yu. I.; Shvets, T. M.

TITLE: The mechanism of the reaction of polymers with colloidal metal particles at the moment of their formation on the cathode

SOURCE: AN SSSR. Doklady*, v. 158, no. 5, 1964, 1162-1165

TOPIC TAGS: natural rubber, polyisobutylene, carboxylate rubber, epoxy resin, colloidal iron, polymer colloidal metal reaction, IR spectrum

ABSTRACT: The reaction of polyisobutylene, natural rubber, carboxylate rubber and epoxy resin with colloidal iron particles at the instant of their formation on the cathode was investigated in order to explain the mechanism of the interaction of the polymer with the active surface of the metal particles. IR spectra of the reaction products of polyisobutylene or natural rubber with colloidal iron obtained electrolytically in the presence of oleic acid were the same as spectra of films of the pure polymers, indicating the macromolecules did not contact direct-

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ACCESSION NR: AP4047950

ly with the surface of the colloidal metal particles but reacted with the oleic acid adsorbed on this surface. In the case of carboxylate rubber and of the epoxy resin the C=O and CH_2-CH groups decreased as the colloidal iron concentration increas-
O

ed, indicating reaction similar to chemosorption of the polar fixing group with the colloidal particle surface. These results were confirmed by desorption studies of the polymer-colloidal iron reaction products: polyisobutylene and natural rubber were reversibly adsorbed while the carboxylate rubber and the epoxy were irreversibly adsorbed on the iron particle surface. Orig. art. has: 4 figures

ASSOCIATION: Institut obshchey i neorganicheskoy khimii Akademii nauk UkrSSR (Institute of General and Inorganic Chemistry, Academy of Sciences, UkrSSR)

SUBMITTED: 28Apr64 ENCL: 00
SUB CODE: MT, GC NO REF SOV: 005 OTHER: 000

Card 2/2

UL'BERG, Z.R.; KHIMCHENKO, Yu.I.; SHVETS, T.M. [Shvets', T.M.]

Metallized polymers on the basis of colloidal lead. Dop. AN URSR no.11:1486-1489 '65. (MIRA 18:12)

1. Institut obshchey i neorganicheskoy khimii AN UkrSSR.

L 37642-66 EWT(m)/EWP(v)/EWP(j)/T IJP(c) DS/WW/RM

ACC NR: AP6017100 (A) SOURCE CODE: UR/0226/66/000/001/0029/0034

AUTHORS: Natanson, E. M.; Khimchenko, Yu. I.; Ul'berg, Z. R.; Shvets, T. M. 49 B

ORG: Institute of General and Inorganic Chemistry AN UkrSSR (Institute obshchey i neorganicheskoy khimii AN UkrSSR)

TITLE: Organometallic polymers based on epoxy-dian resin ED-5 and colloidal lead

SOURCE: Poroshkovaya metallurgiya, no. 1, 1966, 29-33

TOPIC TAGS: organometallic compound, adhesive, organic synthetic process, electrochemistry, epoxy resin, epoxy plastic/ED-5 epoxy resin

ABSTRACT: The conditions for and the mechanism of interaction of colloidal lead (I) and epoxy-dian resin ED-5 (II) to form organometallic polymers were studied. It was established in a previous work by E. M. Natanson, Yu. I, Khimchenko, and T. M. Shvets (DAN SSSR(v pechati)) that the adhesive power of the epoxy resin is directly related to the number of epoxy rings which open upon reacting with the metal. Organometallic polymers were obtained by the electrolytic method described by E. M. Natanson (Kolloidnyye metally, Izd-vo AN UkrSSR, K., 1959). The effect of the current density, concentration of the electrolyte and the polymer, temperature, and speed of the cathode rotation upon the composition of organometallic polymers was investigated. It was established by means of infrared spectroscopy that the polar groups of II react with the surface particles of I at the instant of their appearance

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Card 2/2 vmb

SHVETS, I.T., akademik; DYBAN, Ye.P., kand.tekhn.nauk; STRADOMSKIY, M.V., kand.tekhn.nauk; GUSAK, Ya.M., inzh.; ZATKOVETSKIY, G.N.; KLIMENKO, V.N.; NASYBULLINA, A.A.; CHEPASKINA, S.M.

Development and study of the air cooling system of the rotor of the GT-6-750 high-pressure turbine. Energomashinostroenie 11 no.10:22-25 O '65. (MIRA 18:11)

1. AN UkrSSR (for Shvets).

14(3) SOV/176-58-7-15/17

AUTHOR: Shvets, V., Lieutenant Colonel, Hero of the Soviet Union

TITLE: A Device for Laying Anti-Tank Mines Under Water (Prisposobleniye dlya ustanovki protivotankovykh min pod vodoy)

PERIODICAL: Voyenno-inzhenernyy zhurnal, 1958, Nr 7, p 41 (USSR)

ABSTRACT: The author describes a device invented by Sergeant Sheremet'yev for the laying of mines under water. It is worked by 2 men and is operated by means of a lever. The saving in time, it is claimed, is considerable as against other more primitive methods. There is 1 set of sketches.

Card 1/1

SHVETS, V.

What will the radio industry give to the public. Sov.torg. 33 no.1:20-25 Ja '60. (MIRA 13:4)
(Radio industry)

S/120/62/000/001/011/061
E032/E514

AUTHORS: Tsirlin, Yu.A., Shvets, V.A. and Khudenskiy, Yu.K.

TITLE: Determination of the resolution of scintillation counters

PERIODICAL: Pribory i tekhnika eksperimenta, no.1, 1962, 56-57

TEXT: The resolution of a scintillation counter with sodium iodide or caesium iodide phosphors is usually determined either as the half-width of the Cs^{137} photo-peak divided by the corresponding channel number, or by comparing the two Co^{60} peaks at 1.17 and 1.33 MeV with the depth of the minimum between them. There is no published method whereby the results of these two determinations can be compared. The authors have found a relation between the ratio of the 1.33 MeV peak to the ordinate of the minimum of the pulse height distribution curve and the resolution R_{Co} for 1.33 MeV gamma-rays. In the calculation it was assumed that the photoelectric cross-section in this energy range is inversely proportional to $E^{1,35}$, that the form of the photo-peak is Gaussian and that the resolution of the scintillation

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counter is inversely proportional to $E^{0.5}$. It is shown that the relation between the above ratio and the resolution is in fact

$$\xi = 0.44 \exp (115/R^2).$$

This result is in good agreement with the reported experimental values for crystals with linear dimensions in excess of 1 cm. There is 1 figure.

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy institut monokristallov, stsintillyatsionnykh materialov i osobo chistykh khimicheskikh veshchestv (All Union Scientific Research Institute of Monocrystals, Scintillator Materials and Extra-pure Chemical Substances)

SUBMITTED: May 26, 1961

L 16436-65 EPA(s)-2/EWT(m)/EWP(t)/EWP(b) Pt-10 IJP(c)/ASD(f)-2 JD/JG
ACCESSION NR: AP4048746 S/0051/64/017/005/0737/0738

AUTHORS: Baturicheva, Z. B.; Gurevich, N. Yu.; Tsirlin, Yu. A.; Shvets, V. A.

B

TITLE: Effect of plastic deformation on the light yield of NaI(Tl) crystals

27 27

SOURCE: Optika i spektroskopiya, v. 17, no. 5, 1964, 737-738

TOPIC TAGS: scintillator, plastic deformation, light yield

ABSTRACT: The purpose of the investigation was to determine the cause of the reduction in the light yield of a gamma-excited plastically deformed NaI(Tl) crystal with 0.07% Tl concentration by weight. The plastic deformation was produced with a hand vise. The samples in the form of plates measuring 1 x 10 x 10 mm were packed in special containers with a reflector made of aluminized dacron film, which served also as the container wall on the gamma-irradia-

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L 16436-65
ACCESSION NR: AP4048746

tion side. The light yield was measured relative to the characteristic copper Kα line with a scintillation counter consisting of an FEU-29 photomultiplier and two single-channel AADO-1 differential analyzers, one of which served as an amplifier. The relative light yield was also measured under gamma irradiation from a 0.5 mCi Co^{60} source by an integral method, using an FEU-29 photomultiplier and an M-95 microammeter. The experiments were performed at 25C. The absorption of the crystals was measured in the 500--1100 nm range with an SF-4 spectrophotometer. The light yield decreases with increasing plastic deformation, but the absorption remained practically constant. The transparency and the intensity of the high-temperature emission also decreased with increasing stress. It is concluded that not all the decrease in light yield is due to the increase in the absorption in the crystals, and that some of the decrease is due to a trapping of the luminescence centers by vacancies. Orig. art. has: 2 figures.

Card 2/3

L 16436-54
ACCESSION NR: AP4048746

ASSOCIATION: None

SUBMITTED: 06Jan64

ENCL: 00

SUB CODE: OP

NR REF SOV: 001

OTHER: 001

Card 3/3

L 16984-66 EWT(m)/EWP(t)/ETI IJP(c) JH/JD

ACC NR: AT6024912 (A,N) SOURCE CODE: UR/2981/66/000/004/0037/0048

AUTHOR: Mikhaylov, K. N.; Kovrizhnykh, V. G.; Archakova, Z. N.; Baranchikov, V. M.; Sandler, V. S.; Shvets, V. A.

ORG: none

TITLE: Preparation of pressed semifinished products from VAD23 alloy

SOURCE: Alyuminiyevyye splavy, no. 4, 1966. Zharoprochnyye i vysokoprochnyye splavy (Heat resistant and high-strength alloys), 37-48

TOPIC TAGS: aluminum alloy, metal pressing, solid mechanical property / VAD23 aluminum alloy

ABSTRACT: In order to determine the possible applications of VAD23 alloy, the influence of various technological factors on its mechanical properties and structure was investigated. The optimum mechanical properties were found to be produced by pressing directly from an ingot which had first undergone homogenization. The optimum pressing temperature of sections with a flange thickness of 5 mm, 470-490°C, i. e., the temperature to which the blanks are heated, insures high strength characteristics and a comparatively good plasticity over the entire length of the section. The elongation per unit length of the sections is practically independent of the pressing temperature of the alloy and of the degree of primary recrystallization. A change in the pressing rate in the range of 0.5-5.0 m/min at pressing temperatures of 250-430°C does not af-

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L 65[illegible]-66

ACC NR: AT6024912

fect the plasticity of VAD23 alloy, and increases the strength characteristics slightly. In order to slow down the recrystallization of the structure during heating for quenching of thin sections pressed at 470-490°C, it is necessary to prepare them with an elongation coefficient of no more than 25-30. Orig. art. has: 11 figures and 5 tables.

SUB CODE: 11/ SUBM DATE: none

Card 2/2

ACC NR: AR7004873 SOURCE CODE: UR/0276/66/000/009/B042/B042

AUTHOR: Archakova, Z. N.; Kovrizhnykh, V. G.; Sandler, V. S.; Shvets, V. A.; Lebedeva, N. S.

TITLE: The effects of heating conditions prior to hardening and the amount of cold deformation after hardening on the mechanical properties and structure of pressed sections of VAD23 alloy

SOURCE: Ref. zh. Tekhnologiya mashinostroyeniya, Abs. 9B267

REF SOURCE: Sb. Alyumin. splavy. M., Metallurgiya, vyp. 4, 1966, 57-64

TOPIC TAGS: heat effect, cold hardening, mechanical property, cold deformation, alloy

ABSTRACT: Dependence was established between the structure, mechanical properties, and conditions of preheating of pressed sections of the VAD23 alloy prior to hardening. It was recommended that the hardening temperature be maintained within the 515--525 C range. The extrusion ratio is set at 15-- 25 for a section with a flange up to 10 mm thick. The straightening of sections, following

UDC: 621.785.6.001.5

Card 1/2

ACC NR: AR7004873

hardening by stretching with an amount of deformation of 1—4%, reduces the strength characteristics of the sections by 2—4 kg/mm^2; change in the per unit elongation. No changes in mechanical properties occur following higher degrees of cold deformation. Repeated hardening does change the strength characteristics of the pressed sections from +1.7 to -11.6 kg/mm^2 and the per unit elongation from +0.9 to -4.5%. The negative effect of repeated hardening increases with increase in the extrusion ratio and the amount of cold deformation following primary and secondary hardening. Orig. art. has: 7 figures. [Translation of abstract] [AM]

SUB CODE: 11, 13/

Card 2/2

ACC NR: AT6024914 (A, N) SOURCE CODE: UR/2931/66/000/004/0057/0064

AUTHOR: Archakova, Z. N.; Kovrizhnykh, V. G.; Sandler, V. S.; Shvets, V. A.; Lobedeva, N. S.

ORG: none

44
B+1

TITLE: Effect of heating conditions preceding quenching and of the degree of cold deformation after quenching on the mechanical properties and structure of pressed sections of VAD23 alloy

SOURCE: Alyuminiyevyye splavy, no. 4, 1966. Zharoprochnyye i vysokoprochnyye splavy (Heat resistant and high-strength alloys), 57-64

TOPIC TAGS: METAL DEFORMATION, aluminum alloy, metal pressing, metal heat treatment / VAD23 aluminum alloy

ABSTRACT: The relationship between the structure, mechanical properties, and heating conditions prior to the quenching of pressed sections of VAD23 alloy was determined. The temperature of heating for quenching of pressed semifinished products should be maintained between 515 and 525°C. The elongation coefficient during pressing of sections with a flange thickness up to 10 mm should be between 15 and 25. Straightening of the sections after quenching by the extension method with a degree of deformation of 1-4% decreases the strength characteristics of sections of VAD23 alloy by 2-4 kg/mm^2 without much change in elongation per unit length. High degrees of cold deformation do

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ACC NR: AT6024914

not lead to a further change in mechanical properties. A second quenching changes the strength properties of pressed sections from +1.7 to -11.6 kg/mm^2 and the elongation from +0.9 to -4.5%. The negative effect of overquenching is greater the higher the elongation coefficient during pressing and the degree of cold deformation after the first and second quenching. It is concluded that in preparing pressed semifinished products from VAD23 alloy, it is necessary to limit the degree of deformation during straightening by extension after quenching to 3% and to avoid a second quenching. Orig. art. has: 7 figures and 1 table.

SUB CODE: 11/ SUBM DATE: none

Card 2/2

L [illegible] EWT(m)/EWP(k)/EWP(t)/ETI IJP(c) JH/JD/WW

ACC NR: AT6024915 (A) SOURCE CODE: UR/2981/66/000/004/0065/0069

AUTHOR: Mikhaylov, K. N.; Ovodenko, M. B.; Archakova, Z. N; Chernoskutov, Ye.F.; Shvets, V. A.

ORG: none

TITLE: Manufacturing procedure and mechanical properties of VAD23 alloy sheets

SOURCE: Alyuminiyevyye splavy, no.4, 1966. Zharoprochnyye i vysokoprochnyye splavy (Heat resistant and high-strength alloys), 65-69

TOPIC TAGS: aluminum alloy, copper containing alloy, lithium containing alloy, cadmium containing alloy, manganese containing alloy, titanium containing alloy, metal cladding, metal property/VAD23 aluminum alloy

ABSTRACT: A manufacturing procedure for rolling aluminum-clad VAD23-alloy sheets has been developed. It is proposed that hot rolling be done in two stages. First, the pack, a slab, and a cladding plate are welded together by rolling at 270—340C. The prerolled packs are reheated to 450—500C and rolled into a strip in a continuous mill. Nonclad sheets can be rolled in one stage at 450—500C. It was found that the plasticity in hot rolling of the alloy is greatly affected by the copper and lithium content. Susceptibility to cracking significantly increases when the copper content is above 5.3% and the lithium content is above 1.2%. With this method, sheets 0.5—5.0 mm thick were successfully rolled. Their tensile strength

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ACC NR: AT6024915

at room temperature was 55—60 kg/mm^2 and elongation was 2—7%. Orig. art. has: 5 figures. [TD]

SUB CODE: 11/ SUBM DATE: none/ ORIG REF: 002/ ATD PRESS: 5056

Card 2/2

SHVETS, V.B., mladshiy nauchnyy sotrudnik; SOKOLOV, N.M., kandidat tekhnicheskikh nauk, redaktor; PETROVA, V.V., redaktor izdatel'stva; MEL'NICHENKO, F.P., tekhnicheskiy redaktor

[Instructions for surface compaction of soils for building and structure foundations by means of heavy tamping machines] Ukazaniia po poverkhnostnomu uplotneniiu gruntov v osnovanii zdanii i sooruzhenii tiazhelymi trambovkami. U 136-55/Minstroi. Moskva, Gos. izd-vo lit-ry po stroit. i arkhitekture, 1955. 15 p. (MIRA 9:10)

1. Russia(1923- U.S.S.R.) Ministerstvo stroitel'stva. Tekhnicheskoye upravleniye. 2. Vsesoyuznyy nauchno-issledovatel'skiy institut osnovaniy i fundamentov (for Shvets)
(Soil stabilization)

ABELEV, Yu.M., professor ; SHVETS, V.B., inzhener

New method of preparing the soil under foundations of buildings and structures. Sbor. mat. o nov. tekh. v stroi. 17 no.5:20-22 '55. (Soil stabilization) (MLRA 8:6)

SHVETS, V.B. Cand Tech Sci (diss) "Investigation of the effectiveness of heavy rammers in the consolidation of foundation ~~grounds of constructions~~." Mos, 1956 14 pp 20 cm. (~~USSR~~ Acad of Construc and Arch Sci Res~~earch~~ Inst of Foundations and Underground ~~construc~~) 110 copies

(KL, 11-57, 99)

KRUTOV, V.I., inzhener; SHVETS, V.B., inzhener.

Preparing foundations for building on filled-in ground. Biul.stroi. tekh. 13 no.5:8-11 My '56. (MLRA 9:8)

1. Nauchno-issledovatel'skiy institut osnovaniy i fundamentov Ministerstva stroitel'stva SSSR.
(Soil mechanics) (Foundations)

SHVETS, V.B.

Investigating the effectiveness of using heavy rams in stabilizing loess soils for foundations. [Trudy] NIIOSP no.37:51-67 '59. (MIRA 12:11)

(Soil stabilization)

SHIL'SHIY, V., kand.tekhn.nauk; SHIL'SHIY, V., nauchnyy sotrudnik

[illegible] in foundations of large-panel apartment houses.
[illegible] nr.[illegible]:29-[illegible] S '6[illegible]. (MIRA 14:10)

1. [illegible] Laboratoriya osnovaniy i fundamentov Sverdlovskogo nauchno-issledovatel'skogo instituta po stroitel'stvu (for Shil'shiy). 2. [illegible] Laboratoriya osnovaniy i fundamentov Sverdlovskogo nauchno-issledovatel'skogo institut po stroitel'stvu (for Shil'shiy).

(Foundations)

KORZHENKO, L.I.; SHVETS, V.B.; RAYUK, V.F.

Eluvial soils of the Urals as foundation for structures.
Trudy NII prom.zdan.i soor. no.4:5-20 '61. (MIRA 15:5)
(Ural Mountains--Soil mechanics)

SHVETS, V.B., kand.tekhn.nauk

Using eluvial soils of the Urals for foundations. Izv. ASiA 4 no.2:82-90 '62. (MIRA 15:9)
(Ural Mountain region—Foundations)

KOCHENGIN, B.I.; SHVETS, V.B.

Regional map of the normal seasonal freezing depths in clay in the Ural Mountain region. Osn., fund. i mekh. grun. 4 no.3:28-29 '62. (MIRA 15:7)

(Ural Mountain region--Frozen ground)

BARSKOV, S.I.; SHVETS, V.B.

Depth of soil freezing in the Central Urals. Trudy NII prom. zdan.i soor. no.4:21-31 '61. (MIRA 15:5)
(Ural Mountains—Soil freezing)

SHVETS, V.B., kand.tekhn.nauk; KAZAKOV, P.P., inzh.

Testing soil for displacement by forcing it to bulge out in the field. Transp. stroi. 12 no.5:38-40 My '62. (MIRA 15:6)
(Soil mechanics)

SHVETS, V.B. (Sverdlovsk)

Standard and calculated characteristics of eluvial clayey soils. Osn., fund.i mekh.grun. 4 no.1:28-29 '62. (MIRA 16:2)
(Clay) (Soil mechanics)

KORZHENKO, L.I.; SHVEIN, V.B.

Regional design norms for foundations for use by Ural foundation workers. Osn., fund. i mekh. grun. 5 no.4: 26-27 1963. (MIRA 16:11)

SHVETS, V.B. (Sverdlovsk)

Evaluation of foundations made from weathered (alluvial) coarse fragmental soils. Osn., fund. i mekh. grun. 5 no.5:13-15 '63. (MIRA 16:10)

SHVETS, V.B., kand. tekhn. nauk; KOCHENGIN, B.I., inzh.; NAUMENKO, A.S., red.

[Instructions on determining the depth for laying foundations under conditions of ground freezing in the Ural Mountain Region] Ukazaniia po naznacheniiu glubiny zalozheniia fundamentov iz usloviii promerzaniia gruntov na Urale. Sverdlovsk, 1964. 12 p. (MIRA 18.7)

1. Sverdlovsk. Ural'skiy promstroyniiproyekt.

SEVETS, Viktor [illegible]; [illegible], [illegible], kand. geol.-mineral. nauk [illegible], retsenzent; [illegible], L.[illegible], [illegible], kand. tekhn. nauk, retsenzent

[Alluvial soil as a foundation bed for structures] Aliuvial'nye grunty kak osnovaniia sooruzhenii. Moskva, Stroiizdat, 1964. 198 p. (MIRA 18:1)

1. Sverdlovskiy gorngy institut imeni V.V.[illegible]eva (for Seinkeritov). 2. Zavodoupravlenie kafedry [illegible] i fundamentov Ural'skogo politekhnicheskogo instituta (for Korzhenko).

[illegible]

[illegible] determination of the nature of the deformation of [illegible] according to [illegible] [illegible], Dan., [illegible] Tem. [illegible] [illegible].

(USSR 17:1)

SHVETS, V.B.; KAZAKOV, P.P.

Measuring the deformation area in cohesive soils; field studies. Osn., fund. i mekh. grun. 7 no.4:10-12 '65.

(MIRA 18:8)

S/187/62/000/006/002/003
D053/D112

AUTHOR: Shvets, V.F.

TITLE: Interference method of measuring the wear resistance of magnetic heads

PERIODICAL: Tekhnika kino i televideniya, no. 6, 1962, 18-22

TEXT: An interference method is described for measuring the wear resistance of magnetic heads and materials for making them under real operating conditions. The method was developed to speed up the research on new wear resistant materials for making magnetic heads. The method consists in making an impression, a few microns thick, in the magnetic head and then determining the wear resistance due to tape friction by directly measuring the depth of the impression by the displacement of interference lines. The impression shape can be arbitrarily chosen and the only requirement is that the surface of the impression be smooth. The interference lines are measured with the МИИ-4 (MII-4) Linnik microinterferometer. Results of an experimental

Card 1/2

S/115/62/000/007/001/008
E194/E455

AUTHOR: Shvets, V.F.

TITLE: An interference method of measuring the thickness of thin transparent films

PERIODICAL: Izmeritel'naya tekhnika, no.7, 1962, 5-6

TEXT: When a groove or scratch cannot be made in a film its thickness can still be measured by normal interferometer methods by passing one of the interfering rays through the film and measuring the displacement of the colour interference bands. However, such measurements can only be made by transmitted light and, moreover, two separate successive interference patterns are required, with and without the film. The consequent additional errors exclude the photographic method of measuring displacement. The improved method now proposed uses light incident on the transparent film and partly reflected both from the upper and lower surface. These two reflections cause separate interference patterns. In white light two systems of coloured bands appear, each symmetrical about a white achromatic band surrounded by two black bands. The two systems of bands are displaced in

Card 1/3

proportion to the film thickness and to the refractive index of the film. The following formula is derived for determining the film thickness:

$$h = \frac{\lambda}{4n}\left(\frac{2b}{a} - K\right)$$

where $\lambda = 550$ mμ; n - the refractive index of the film substance; b - the distance between achromatic bands; a - the difference between neighbouring bands; K = 0 or 1, for instance for a glass film in air K = 1. Thus measurement of film thickness involves measurement of the distances b and a. The method is practicable for films that cannot be touched or damaged, such as liquid films, and it is more sensitive than the usual method. Both systems of bands are observed simultaneously in the instrument and so the interference pattern can be colour-photographed for measurement. Variations in film thickness or refractive index are indicated by curvature of the line. The accuracy of the method falls off for thick specimens but they may possibly be measured by focusing a short-focus microscope

An interference method ... S/115/62/000/007/001/008
E194/E455

successively on to the two interference patterns from the upper and lower surfaces, measuring the displacement and calculating the thickness in the usual way. There is 1 figure.

Card 3/3

SHVETS, V. F.

Interferential method of measuring small impressions in the determination of wear. Zav. lab. 28 no.12:1488-1489 '62. (MIRA 16:1)

1. Moskovskiy elektrotekhnicheskiy institut svyazi.

(Mechanical wear)

S/020/62/144/006/014/015
B108/B102

AUTHOR: Shvets, V. F.

TITLE: Thermomagnetic saturation in a ferrite core

PERIODICAL: Akademiya nauk SSSR. Doklady, v. 144, no. 6, 1962, 1293-1294

TEXT: The low Curie temperature of ferrites renders thermomagnetic phenomena in ferrite working materials a feature of interest for research. A ferrite core will be heated if an hf current passes through a coil around it. After, however, a certain current is exceeded the temperature will no longer rise, thermomagnetic saturation being reached which depends solely on the kind of material. Appropriate measurements have shown that this saturation temperature is only slightly higher than the Curie temperature. In first approximation, the phenomenon is explained by the broadening of the effective nonmagnetic gap. This phenomenon may be useful in measuring the Curie temperature of magnetodielectrics. There are 3 figures.

Card 1/2

Thermomagnetic saturation in... S/020/62/144/006/014/015
B108/B102

ASSOCIATION: Moskovskiy elektrotekhnicheskiy institut svyazi (Moscow Electrotechnical Institute of Communications)

PRESENTED: February 7, 1962, by I. K. Kikoin, Academician

SUBMITTED: February 5, 1962

Card 2/2

SPIVAK, G.V.; IVANOV, R.D.; PAVLYUCHENKO, O.P.; SEDOV, N.N.; SHVETS, V.F.

Visualization of a magnetic sound-recording field by means of an electron mirror. Izv. AN SSSR. Ser. fiz. 27 no.9:1210-1218 S '63. (MIRA 16:9)

1. Fizicheskiy fakul'tet Moskovskogo gosudarstvennogo universiteta im. M.V.Lomonosova.

(Electron optics) (Magnetic fields)

ACCESSION NR: AP4031092 S/0187/64/000/004/0041/0048

AUTHOR: Shvets, V. F.

TITLE: Temperature conditions of the ferrite magnetic head used for high-frequency recording

SOURCE: Tekhnika kino i televideniya, no. 4, 1964, 41-48

TOPIC TAGS: magnetic recording, high frequency magnetic recording, magnetic recording head, ferrite magnetic recording head, ferrite recording head temperature, tv recording

ABSTRACT: A theoretical and experimental investigation of a "temperature saturation" of the working part of a high-frequency (video) recording head, accompanied by a considerable expansion of the effective gap, is reported. Relations between the effective gap width, the recording-head current, and the metal-gap-fill temperature, for the case of a contactless recording by a ferrite

Card 1/2

ACCESSION NR: AP4031092

head, are established. It is shown that in some cases, the maximum density of a magnetic recording is limited by the above phenomena. Some conclusions are extended over to the case of a contact magnetic recording. Experiments were intended to provide a qualitative verification of the formulas and to evaluate quantitatively the temperature phenomena accompanying video recording and reproduction. Thermal radiation and thermal conductivity of ferrite were measured, as were the temperatures of the gap fill and the effective gap width. The effect of the head current and tape speed (up to 80 m/sec) on the temperature of the working part was determined (curves supplied). It is recommended that specifications on h-f ferrite contain requirements regarding its thermomagnetic characteristics. Orig. art. has: 10 figures and 22 formulas.

ASSOCIATION: none

SUBMITTED: 00 DATE ACQ: 30Apr64 ENCL: 00

SUB CODE: GE, CO NO REF SOV: 003 OTHER: 000

Card 2/2

L 21782-66 EWT(m)/EWP(j)/T IJP(c) WW/RM
ACC NR: AP6002862 (A) SOURCE CODE: UR/0286/65/000/024/0020/0020

AUTHORS: Shvets, V. F.; Gus'kov, K. A.; Gribov, A. M.; Zelenskiy, A. P.; Zorina, Ye. N.

ORG: none

TITLE: A method for obtaining acrylic acid nitrile. Class 12, No. 176890

TOPIC TAGS: acetylene, acrylic acid, hydrocyanic acid, organic nitrile compound

ABSTRACT: This Author Certificate presents a preparative method for a nitrile of acrylic acid, based on a reaction between acetylene and hydrocyanic acid in presence of a Newland catalyst. To increase the product yield, the catalyst is saturated with acetylene prior to reaction, and the reaction is carried out in an ideal mixing apparatus. The saturation of the catalyst with acetylene is carried out in a packed absorption column (see Fig. 1).

Card 1/2 UDC: 547.339.2'391.1.07

L 21782-66
ACC NR: AP6002862

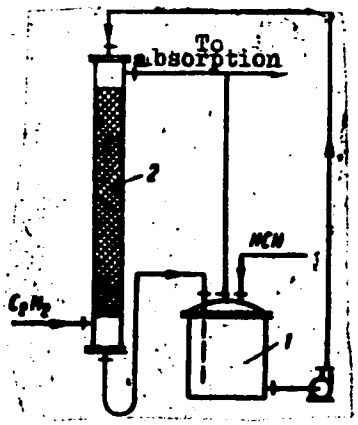

Fig. 1. 1 - ideal mixing apparatus; 2 - packed absorption column.

Orig. art. has: 1 figure.

SUB CODE: 07/ SUBM DATE: 04Mar65

Card 2/2

[illegible], A. I.; SHVETS, V.F.

Reactions of α-oxides. Part 6: Kinetics of the reaction of ethylene oxide with benzenesulfamide. Kin. i kat. 5 no.4:899-905 N-D '64. (MIRA 18:3)

1. Moskovskiy khimiko-tekhnologicheskiy institut imeni Mendeleyeva.

LEBEDEV, N.N.; SHVETS, V.F.

Reactions of α-oxides. Part 8: Reaction kinetics of ethylene oxide with phenols and the reactivity of phenols in this reaction. Kin.i kat. 6 no.5:782-791 S-O '65. (MIRA 18:11)

1. Moskovskiy khimiko-tekhnologicheskiy institut imeni Mendeleyeva.

SHVETS, V.I.; VOLKOVA, L.V.; PREOBRAZHENSKIY, N.A.

Lipides. Part 8: Synthesis of α,β-dilinoleoin. Zhur.ob.khim. 31 no.7:2181-2183 Jl '61. (MIRA 14:7)

1. Moskovskiy institut tonkoy khimicheskoy tekhnologii imeni M.V. Lomonosova.

(Lipide)

SHVETS, V.I.; VOLKOVA, L.V.; PREOBRAZHENSKIY, N.A.

Complex lipides. Part 2: Synthesis of unsaturated and saturated α-cephalins. Zhur.ob.khim. 31 no.7:2184-2186 Jl '61. (MIRA 14:7)

1. Moskovskiy institut tonkoy khimicheskoy tekhnologii imeni M.V. Lomonosova.

(Cephalins)

SHVETS, V.I.; BOGOSLOVSKIY, N.A.; POLYACHENKO, V.N.; VOLKOVA, L.V.; SAMOKHVALOV, G.I.; PREOBRAZHENSKIY, N.A.

Synthesis of phospholipides containing residues of higher aliphatic polyene acids. Dokl. AN SSSR 140 no.4:851-854 O '61. (MIRA 14:9)

1. Moskovskiy institut tonkoy khimicheskoy tekhnologii im. M.V. Lomonosova i Vsesoyuznyy nauchno-issledovatel'skiy vitaminnyy institut. Predstavleno akademikom A.N.Nesmeyanovym.
(Phosphatides) (Olefins)

SHVETS, V.I.; VOLKOVA, L.V.; TOLKACHEV, O.N.

Synthetic investigations in the field of curare alkaloids. Part 9: Synthesis of a dimethyl ether of racemic chondrodendrine. Izv.vys.ucheb.zav.;khim.i khim.tekh. 5 no.3:445-448 '62. (MIRA 15:7)

1. Moskovskiy institut tonkoy khimicheskoy tekhnologii imeni Lomonosova, kafedra khimii i tekhnologii tonkikh organicheskikh soyedineniy.

(Bebeerine)

VOLKOVA, L.V.; SHVETS, V.I.; RYZHENKOVA, S.F.; VARVARINA, N.B.; SMOLOVIK, I.V.; PREOBRAZHENSKIY, N.A.

Lipides. Part 10: Synthesis of mixed α,β-diglycerides containing residues of higher acids of the aliphatic series. Zhur.ob.khim. 32 no.6:1764-1768 Je '62. (MIRA 15:6)

1. Moskovskiy institut tonkoy khimicheskoy tekhnologii im. M.V. Lomonosova.

(Glycerides) (Acids, Fatty)

SHVETS, V.I.; VOLKOVA, L.V.; PREOBRAZHENSKIY, N.A.

Lipides. Part 12: Synthesis of unsaturated and saturated α,β-diglycerides of different acids. Zhur.ob.khim. 32 no.8:2474-2479 Ag '62. (MIRA 15:9)

1. Moskovskiy institut tonkoy khimicheskoy tekhnologii imeni M.V. Lomonosova.

(Glycerides)

SHVETS, V.I.; VOLKOVA, L.V.; LUKASHENKO, E.Ye.; PREOBRAZHENSKIY, N.A.

Lipides. Part 13: Synthesis of unsaturated α,β-diglycerides of same or different acids. Zhur.ob.khim. 32 no.8:2479-2482 Ag '62. (MIRA 15:9)

1. Moskovskiy institut tonkoy khimicheskoy tekhnologii imeni M.V. Lomonosova.
(Glycerides)

SHVETS, V.I.; VOLKOVA, L.V.; VASIL'YEVA, V.V.; FILONOVA, L.M.; PREOBRAZHENSKIY, N.A.

Lipides. Part 18: Synthesis of mixed unsaturated α,β-diglycerides. Zhur.ob.khim. 33 no.6:1843-1847 Je '63. (MIRA 16:7)

1. Moskovskiy institut tonkoy khimicheskoy tekhnologii imeni M.V.Lomonosova.

(Glycerides)

VOLKOVA, L.V.; SHVETS, V.I.; KHANDKAROVA, V.S.; RYZHENKOVA, S.F.; PREOBRAZHENSKIY, N.A.

Lipides. Part 19: Synthesis of optically active D-(—)-α-oleoyl-β- linoleoyl-glycerol. Zhur.ob.khim. 33 no.6: 1848-1851 Je '63. (MIRA 16:7)

1. Moskovskiy institut tonkoy khimicheskoy tekhnologii imeni M.V.Lomonosova.

(Glycerides)

OPARIN, A.I., akademik; GEL'MAN, N.S.; ZHUKOVA, I.G.; SHVETS, V.I.; CHERGADZE, Yu.N.; TSFASMAN, I.M.

Lipids of the dehydrogenase preparation from the cytoplasmic membranes of Micrococcus lysodeicticus. Dokl. AN SSSR 152 no.1:228-230 S '63. (MIRA 16:9)

1. Institut biokhimii im. A.N.Bakha AN SSSR; Institut tonkoy khimicheskoy tekhnologii im. M.V.Lomonosova i Institut biologicheskoy fiziki AN SSSR.
(LIPIDS) (DEHYDROGENASES) (BACTERIA, PATHOGENIC)

SHVETS, V. I.; ANTAL Laslo; VOLKOVA, L. A.; PREOBRAZHENSKIY, N.A.

Complex lipids. [illegible] of optically active dextrorotatory (natural) and racemic dilinoleoyl-α-lecithins. Zhur. ob. Khim. 34 no.6:1908-1911 Je '64. (MIRA 17:7)

1. Moskovskiy institut tonkoy khimicheskoy tekhnologii imeni Lomonosova.

SHVETS, V.I.; DOROFEYEVA, L.T.; VOLKOVA, L.V.; GRUN-GRZHIMAYLO, M.A.; SHMIDT, I.S.; PREOBRAZHENSKIY, N.A.

Study of complex lipids. Paths in the synthesis of the starting substances of phospholipids. Zhur. ob. khim. 34 no.10:3303-3308 O '64. (MIRA 17:11)

1. Moskovskiy institut tonkoy khimicheskoy tekhnologii imeni M.V. Lomonosova.

SHVETS, V.I.; [illegible], I.S.;
VOLKOVA, L.V.; [illegible]

Complex lipids. Synthesis of levorotatory and dextro-levorotatory Alpha-phosphatidylcholi[illegible] (lecithins) with equal and different acid residues. Zhur. ob. khim. 3[illegible] no.10:[illegible]-[illegible] O '[illegible]
(MIRA 18:1)

1. Moskovskiy institut tonkoy khimicheskoy tekhnologii imeni M.V. Lomonosova.

OPARIN, A.I.; LUKOYANOVA, M.A.; SHVETS, V.I.; GEL'MAN, N.S.; TORKHOVSKAYA, T.I.

Role of lipids in the organization of enzymatic chains of electron transfer in Micrococcus lysodeikticus. Zhur. evol. biokhim. i fiziol. 1 no.1:7-15 Ja-F '65. (MIRA 18:6)

1. Institut biokhimii im. A.N. Bakha AN SSSR i Moskovskiy institut tonkoy khimicheskoy tekhnologii im. M.V. Lomonosova.

GOLIKOVA, V.S.; MITROFANOVA, T.K.; SHVETS, V.I.; ZUBOV, P.I.; PREOBRAZHENSKIY, N.A.

Spectral studies of vegetable oils and animal fats. Report No. 1: Infrared spectra of triglycerides. Zhur.org.khim. 1 no.3:433-439 Mr '65. (MIRA 18:4)

1. Moskovskiy Institut tonkoy khimicheskoy tekhnologii imeni M.V.Lomonosova i Institut fizicheskoy khimii AN SSSR.

GOLIKOVA, V.S.; SHVETS, V.I.; MITROFANOVA, T.K.; DOROFEYEVA, L.T.; ZUBOV, F.I.; PREOBRAZHENSKIY, N.A.

Spectral studies of vegetable oils and animal fats. Report No. 2: Infrared spectra of α,β glycerides. Zhur.org.khim. 1 no.3:439-445 Mr '65. (MIRA 18:4)

1. Moskovskiy institut tonkoy khimicheskoy tekhnologii im. M.V. Lomonosova i Institut fizicheskoy khimii AN SSSR.

L 28877-66

ACC NR: AP6018837 SOURCE CODE: UR/0079/65/035/003/0550/0554

36
B

AUTHOR: Volkova, L. V.; Shvets, V. I.; Dorofeyeva, L. T.; Lobanova, S. I.; Konstantinova, N. V.; Preobrazhenskiy, N. A.

ORG: Moscow Institute of Fine Chemical Technology im. M. V. Lomonosov (Moskovskiy institut tonkoy khimicheskoy tekhnologii)

TITLE: Investigations in the field of complex lipids. Synthesis of L- and DL-alpha-phosphatidyl-N,N-(dimethyl)ethanolamines (L- and DL-alpha-N,N-dimethylcephalins)

SOURCE: Zhurnal obshchey khimii, v. 35, no. 3, 1965, 550-554

TOPIC TAGS: IR spectrum, organic synthetic process, organic phosphorus compound

ABSTRACT: L-(+)-and DL-alpha-palmitoyl-beta-oleoyl-alpha'-glycerylphosphoryl-N,N-(dimethyl)ethanolamines and DL-alpha,beta-distearoyl- and dipalmitoyl-alpha'-glycerylphosphoryl-N,N-(dimethyl) ethanolamines were synthesized according to the scheme developed earlier by the authors and associates for lecithins, cephalins, and phosphatidyl serines. During the synthesis, D-(+)- and DL-alpha-palmitoyl-alpha'-benzylglycerines, D-(+)- and DL-alpha-palmitoyl-beta-oleoyl-alpha'-benzylglycerines, D-(+)- and DL-alpha-palmitoyl-beta-9,10-dibromostearoyl-alpha'-benzylglycerines, D-(+)- and DL-alpha palmitoyl-beta-9,10-dibromostearylglycerines, and D-(-)- and DL-alpha-palmitoyl-beta-oleoylglycerines were produced

Card 1/2 UDC: 547.426:547.915

L 28877-66

ACC NR: AP6018837

and characterized. The infrared spectra of the N,N-dimethylcephalines obtained exhibited the band characteristic of glycerin phosphatides, with pronounced frequencies for the covalent POC group (960-980 cm^{-1}), the C=O group in esters (1725-1745 cm^{-1}), and the CH, CH_2, and CH_3 groups in acid radicals (720-740, 1250-1260, 1450-1460, 2850-2950 cm^{-1}). Orig. art. has: 1 formula. [JPRS]

SUB CODE: 07 / SUBM DATE: 20Jan64 / ORIG REF: 003 / OTH REF: 006

Card 2/2

L 28878-66

ACC NR: AP6018838 SOURCE CODE: UR/0079/65/035/003/0554/0556

AUTHOR: Shvets, V. I.; Morozova, S. F.; Volkova, L. V.; Preobrazhenskiy, N. A. 24 B

ORG: Moscow Institute of Fine Chemical Technology im. M. V. Lomonosov (Moskovskiy institut tonkoy khimicheskoy tekhnologii)

TITLE: Investigations in the field of complex lipids. Synthesis of alpha-(alpha'-linolenoyl-beta-linoleoyl)glycerylphosphorylethanolamine, Cephalin)

SOURCE: Zhurnal obshchey khimii, v. 35, no. 3, 1965, 554-556

TOPIC TAGS: organic synthetic process, organic phosphorus compound

ABSTRACT: A highly unsaturated alpha-cephalin: alpha-(alpha'-linolenoyl-beta-linoleoyl)glycerylphosphorylethanolamine -- was synthesized through a series of steps. The basic starting materials were beta-monoglycerides, produced by acylation of alpha, alpha'-benzylideneglycerin, followed by removal of the benzylidene group by hydrolysis with boric acid. The benzylidene method prevented saturation of the cis-C=C bonds of the acyl radicals, while avoiding subsequent catalytic hydrogenolysis. [JPRS]

SUB CODE: 07 / SUBM DATE: 27Jan64 / ORIG REF: 003 / OTH REF: 003

Card 1/1 CC UDC: 547.426:548.915

LUKYANOV, A.N.; LYUBIN, A.I.; [illegible]; [illegible], N.[illegible]

Studies of the synthesis of diyoid compounds. Dokl. AN SSSR 72F no.1:121-124 N '55. (MIRA 18:10)

1. Moskovskiy [illegible] khimicheskiy tekhnologicheskiy in. M.V. Lomonosova. Submitted April 8, 1955.

L 34012-66 EWT(m)/EWP(j) RM

ACC NR: AP6025528 SOURCE CODE: UR/0079/66/036/001/0049/0054

AUTHOR: Shvets, V. I.; Volkova, L. V.; Miroshnikov, A. I.; Morozova, S. F.; Orinova, V. G.; Polyanskaya, V. A.; Preobrazhenskiy, N. A.

ORG: Moscow Institute of Fine Chemical Technology im. M. V. Lomonosov (Moskovskiy institut tonkoy khimicheskoy tekhnologii)

TITLE: Investigations in the field of complex lipids. Synthesis of phosphatidylserines with residues of unsaturated acids

SOURCE: Zhurnal obshchey khimii, v. 36, no. 1, 1966, 49-54

TOPIC TAGS: chemical synthesis, oleic acid, phosphorus compound, IR spectrum

ABSTRACT: The synthesis of highly unsaturated alpha-phosphatidylserines with oleic and linoleic acid residues is described. Starting materials were alpha,beta-diglycerides and the ter-butyl ester of N-phthaloylserine, produced by two methods: from the methyl acrylate and from serine, with the hydroxyl group protected with an acetyl group. Alpha(alpha'-linoleoyl-beta-oleoyl)- and alpha'-(alpha',beta-dilinoleoyl) glycerylphosphorylserines were synthesized. Alpha-(alpha'-linoleoyl-beta-oleoyl)- and alpha-(alpha',beta-dilinoleoyl) glycerylphosphoryl-N-phthaloylserines were synthesized from alpha,beta-diglycerides and the ter-butyl ester of N-phthaloylserine. The tert-butyl ester of alpha-bromo-beta-benzyloxy-propionic acid,

UDC: 547.915.4+547.392.4

Card 1/2

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ACC NR: AP6025528

O-benzyl-N-phthaloylserine, the ter-butyl ester of O-benzyl-N-phthaloylserine, O-acetyl-N-phthaloylserine, and the ter-butyl ester of O-acetyl-N-phthaloylserine were produced and characterized. The structures of the alpha-phosphatidylserines were confirmed by their infrared spectra. Orig. art. has: 1 figure. [JPRS: 35,998]

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Card 2/2

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